

LLNL Fire Protection Engineering Engineering Standard LLNL Fire Protection Program Criteria

S. Leeds

U.S. Department of Energy

Lawrence
Livermore
National
Laboratory

June 1, 1999

DISCLAIMER

This document was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor the University of California nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or the University of California, and shall not be used for advertising or product endorsement purposes.

Work performed under the auspices of the U. S. Department of Energy by the University of California Lawrence Livermore National Laboratory under Contract W-7405-Eng-48.

LLNL FIRE PROTECTION ENGINEERING

ENGINEERING STANDARD

LLNL Fire Protection Program Criteria

Introduction

The Laboratory's Environmental, Safety, and Health (ES&H) policy is as follows: "It is the Laboratory's ES&H policy to perform work in a manner that protects the health and safety of employees and the public, preserves the quality of the environment, and prevents property damage. The environment, safety, and health are to be priority considerations in the planning and execution of all work activities at the Laboratory. Furthermore, it is the policy of LLNL to comply with applicable ES&H laws, regulations, and requirements."

It is the intent of this standard to delineate and implement those codes and standards that support the Laboratory's ES&H policy, and form the minimum requirements of the LLNL Fire Protection Program.

Definitions

- **Standard** - A specified set of rules or conditions concerned with: the class of components; delineation of procedures; definition of terms; specifications of materials, performance, design, or operations; or measures of quality in describing materials, products, systems, services or practices. Standards may be specified as mandatory or reference.
- **Mandatory Standards** - Those standards adopted by LLNL/DOE that define the minimum requirements that LLNL must comply with to the extent they apply to the activities being conducted.
- **Reference Standards** - Those guides or standards adopted by DOE and/or LLNL that LLNL should consider for guidance, as applicable, in addition to the mandatory standards.

LLNL Fire Protection Program Criteria:

Mandatory Fire Protection Standards

- National Fire Codes, published by the National Fire Protection Association
- CFR 1910, Subpart E and L.

- CFR 1926, Subpart F.
- Uniform Building Code (with the exception of chapters 1,3,4,8,9, and 10) published by the International Conference of Building Officials.
- DOE Order 420.1, change 2, Section 4.2, *Fire Protection*
- DOE Order 440.1A, Contractors Requirement Document, Section 15, *Fire Protection*.
- Factory Mutual Data Sheet #7-98, *Hydraulic Fluids*.
- LLNL *ES&H Manual*.
- DOE-HDBK-1081-94, *Primer on Spontaneous Heating and Pyrophoricity*.

Reference Fire Protection Standards

- DOE-STD-1066-97, *Fire Protection Design Criteria*.
- DOE-STD-1088-95, *Fire Protection for Relocatable Structures*.
- National Fire Protection Association (NFPA) Handbooks.
- Factory Mutual Engineering, *Loss Prevention Data Sheets*.
- HSB Industrial Risk Insurers. *Guidelines for Loss Prevention and Control*.
- Society of Fire Protection Engineers (SFPE) Handbook.
- Local and State fire protection criteria, as applicable.
- American Petroleum Institute (API) Guidelines.
- National Fire Protection Association (NFPA) guides, manuals and recommended practices.
- Product Directories of Underwriters Laboratories (UL.)
- Factory Mutual Research Corporation Approval Guide (FM).

Interpretation of LLNL Fire Protection Program Criteria

Interpretations of mandatory and reference standards should be done in consultation with the Technical Leader, Fire Protection Engineering.

Approvals:

_____	Technical Leader	Issue Date	2/18/94
	Fire Protection Engineering	Revision(s):	6/99

_____	Division Leader
	Technical Support and Policy Development